

PTO-1449 REPRODUCED

ATTORNEY DOCKET NO.

APPLICATION NO.

2907.1000-003

10/686,943

APPLICANT

Adrian V.S. Hill, *et al.*

FILING DATE

October 16, 2003

CONFIRMATION NO.

4585

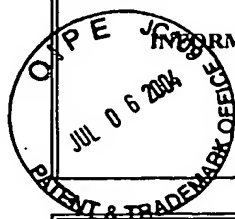
GROUP

1648

INFORMATION DISCLOSURE CITATION  
IN AN APPLICATION

July 2, 2004

(Use several sheets if necessary)



## U.S. PATENT DOCUMENTS

EXAM- INER INI- TIAL	REF. NO.	DOCUMENT NUMBER Number-Kind Code (if known)	ISSUE DATE / PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT
LWH	AA	5,110,587	May 5, 1992	Paoletti, <i>et al.</i>
	AB	5,185,146	February 9, 1993	Altenburger
	AC	5,225,336	July 6, 1993	Paoletti
	AD	5,453,364	September 26, 1995	Paoletti
	AE	5,766,597	June 16, 1998	Paoletti, <i>et al.</i>
	AF	6,663,871 B1	December 16, 2003	McMichael, <i>et al.</i>
	AG	US-2003-0138454-A1	July 24, 2003	Hill, <i>et al.</i>
	AH			
	AI			
	AJ			
	AK			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER Country Code-Number-Kind Code (if known)	DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT	TRANSLATION YES NO	
LWH	AL	WO 97/39771	October 30, 1997	The Gov. of the U.S.		
LWH	AM	WO 98/04728	February 5, 1998	Therion Biologics Corporation		
LWH	AN	WO 96/26271	August 29, 1996	Therion Biologics Corporation		
	AO					
	AP					
	AQ					

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
LWH	AR	Ada, G., "Do Cytotoxic T Lymphocytes Clear Some HIV/SIV Infections?," <i>J. Med. Primatol.</i> 25(3):158-162 (June 1996).
	AS	Aidoo, M., <i>et al.</i> , "Identification of Conserved Antigenic Components For a Cytotoxic T Lymphocyte-Inducing Vaccine Against Malaria," <i>Lancet</i> 345(8956):1003-1007 (Apr. 22, 1995).
	AT	Aidoo, M., <i>et al.</i> , "Recombinant Vaccinia Viruses for the Characterization of <i>Plasmodium falciparum</i> -specific Cytotoxic T Lymphocytes: Recognition of Processed Antigen Despite Limited Re-Stimulation Efficacy," <i>Intl. Immunol.</i> 9(5):731-737 (Jan. 1997).
	AU	Allsopp, C.E.M., <i>et al.</i> , "Comparison of Numerous Delivery Systems for the Induction of Cytotoxic T Lymphocytes By Immunization," <i>Eur. J. Immunol.</i> 26:1951-1959 (1996).
	AV	Blanchard, T., <i>et al.</i> , "Future Vaccines for HIV," <i>Lancet</i> 348(9043):1741 (Dec. 1996).
	AW	Blanchard, T.J., <i>et al.</i> , "Modified Vaccinia Virus Ankara Undergoes Limited Replication in Human Cells and Lacks Several Immunomodulatory Proteins: Implications for Use as a Human Vaccine," <i>J. Gen. Virol.</i> 79:1159-1167 (1998).
	AX	Carroll, M.W., <i>et al.</i> , "Highly Attenuated Modified Vaccinia Virus Ankara (MVA) as an Effective Recombinant Vector: A Murine Tumor Model," <i>Vaccine</i> 15(4):387-394 (1997).
	AY	Chamberlain, R.S., <i>et al.</i> , "Use of Multiple Vaccination Vectors for the Generation of CTL Against a Model Tumor Antigen," <i>Proceedings of the Annual Meeting of the American Association for Cancer Research</i> (Washington, April 20-24, 1996, 37, Abstract No. 3263).
	AZ	Doolan, D.L., "The Complexity of Protective Immunity Against Live-Stage Malaria," <i>J. Immunol.</i> , 165(3):1453-1462 (2000).
	AR2	Doolan, D.L., <i>et al.</i> , "Circumventing Genetic Restriction of Protection against Malaria with Multigene DNA Immunization: CD8 <sup>+</sup> T Cell-, Interferon $\gamma$ -, and Nitric Oxide-Dependent Immunity," <i>J. Exp. Med.</i> 183(4):1739-1746 (April 1996).
↓	AS2	Fuller, D.H., <i>et al.</i> , "Gene Gun-Based Nucleic Acid Immunization Alone or in Combination with Recombinant Vaccinia Vectors Suppresses Virus Burden in Rhesus Macaques Challenged with a Heterologous SIV," <i>Immunol. Cell Biol.</i> 75(4):389-396 (Aug. 1997).

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LWH	AT2	Fuller, D.H., <i>et al.</i> , "Enhancement of Immunodeficiency Virus-Specific Immune Responses in DNA-Immunized Rhesus Macaques," <i>Vaccine</i> , 15(8):924-926 (June 1997).
	AU2	Gallimore, A., <i>et al.</i> , "Early Suppression of SIV Replication By CD8 <sup>+</sup> <i>nef</i> -specific Cytotoxic T Cells In Vaccinated Macaques," <i>Nature Med.</i> 1(11):1167-1173 (Nov. 1995).
	AV2	Gilbert, S.C., <i>et al.</i> , "A Protein Particle Vaccine Containing Multiple Malaria Epitopes," <i>Nat. Biotechnol.</i> 15(12):1280-1284 (1997).
	AW2	Greenspan, N.S., <i>et al.</i> , "Defining Epitopes: It's Not As Easy As It Seems," <i>Nature Biotechnology</i> 7:936-937 (1999).
	AX2	Hanke, T., <i>et al.</i> , "Immunogenicities of Intravenous and Intramuscular Administrations of Modified Vaccinia Virus Ankara-Based Multi-CTL Epitope Vaccine for Human Immunodeficiency Virus Type 1 in Mice," <i>J. Gen. Virol.</i> 79:83-90 (1998).
	AY2	Hanke, T., <i>et al.</i> , "Enhancement of MHC Class I-Restricted Peptide-Specific T Cell Induction by a DNA Prime/MVA Boost Vaccination Regime," <i>Vaccine</i> 16(5):439-445 (1998).
	AZ2	Hanke, T., <i>et al.</i> , "DNA Multi-CTL Epitope Vaccines for HIV and <i>Plasmodium falciparum</i> : Immunogenicity in Mice," <i>Vaccine</i> 16(4):426-435 (1998).
	AR3	Hill, AV, "DNA-Based Vaccines for Malaria: a Heterologous Prime-Boost Immunisation Strategy," <i>Dev. Biol. (Basel)</i> , 104:171-179 (2000).
	AS3	Hill, A.V.S., <i>et al.</i> , "Common West African HLA Antigens Are Associated With Protection From Severe Malaria," <i>Nature</i> 352(6336):595-600 (Aug. 15, 1991).
	AT3	Hirsch, V.M., <i>et al.</i> , "Patterns of Viral Replication Correlate with Outcome in Simian Immunodeficiency Virus (SIV)-Infected Macaques: Effect of Prior Immunization with a Trivalent SIV Vaccine in Modified Vaccinia Virus Ankara," <i>J. Virol.</i> 70(6):3741-3752 (June 1996).
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↓	AV3	Tascon, R. <i>et al.</i> , "Vaccination Against Tuberculosis by DNA Injection," <i>Nat. Med.</i> 2: 893-898 (1996).

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LWH	AW3	Irvine, K.R., <i>et al.</i> , "Route of Immunization and the Therapeutic Impact of Recombinant Anticancer Vaccines," <i>J. Natl. Cancer Inst.</i> 89(5):390-392 (March 1997).
	AX3	Irvine, K.R., <i>et al.</i> , "Enhancing Efficacy of Recombinant Anticancer Vaccines With Prime/Boost Regiments That Use Two Different Vectors," <i>J. Natl. Cancer Inst.</i> 89(21):1595-1601 (Nov. 1997).
	AY3	Lalvani, A., <i>et al.</i> , "An HLA-Based Approach to the Design of a CTL-Inducing Vaccine Against <i>Plasmodium falciparum</i> ," <i>Research in Immunology</i> 145(6):461-468 (1994).
	AZ3	Lanar, D.E., <i>et al.</i> , "Attenuated Vaccinia Virus-Circumsporozoite Protein Recombinants Confer Protection against Rodent Malaria," <i>Infect. Immun.</i> 64(5):1666-1671 (May 1996).
	AR4	Layton, F.T., <i>et al.</i> , "Induction of Single and Dual Cytotoxic T-Lymphocyte Responses to Viral Proteins in Mice Using Recombinant Hybrid Ty-Virus-Like Particles," <i>Immunology</i> 87(2):171-178 (Feb. 1996).
	AS4	Leong, K.H., <i>et al.</i> , "Selective Induction of Immune Responses by Cytokines Coexpressed in Recombinant Fowlpox Virus," <i>J. Virol.</i> , 68(12):8125-8130 (Dec. 1994).
	AT4	Leong, K.H., <i>et al.</i> , "Generation of Enhanced Immune Responses by Consecutive Immunization with DNA and Recombinant Fowl Pox Vectors." In <i>Vaccines 95</i> , Cold Spring Harbor Laboratory Press, p.327-331 (1995).
	AU4	Li, Shengqiang, <i>et al.</i> , "Priming With Recombinant Influenza Virus Followed By Administration of Recombinant Vaccinia Virus Induces CD8 <sup>+</sup> T-Cell-Mediated Protective Immunity against Malaria," <i>Proc. Natl. Acad. Sci. USA</i> 90(11):5214-5218 (June 1993).
	AV4	Limbach, K.J. and Paoletti, E., "Non-Replicating Expression Vectors: Application in Vaccine Development and Gene Therapy," <i>Epidemiol. Infect.</i> 116:241-256 (1996).
	AW4	Mahnel, <i>et al.</i> , "Experiences with Immunization Against Orthopox Viruses of Humans and Animals Using Vaccine Strain MVA," <i>Berliner Und Munchener Tierarztliche Wochenschrift</i> 107(8):253-256 (1994) ABSTRACT ONLY
↓	AX4	McMichael, A., <i>et al.</i> , "Malaria and Other Tropical Diseases," <i>Immunol. Letters</i> 56(1/3):28, 425, 291 (June 22-25, 1997)(Abstract Nos. O.4.05.7, P.4.05.08, P.4.01.18 and P.4.01.22).

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LWH	AY4	McShane, H., <i>et al.</i> , "Enhanced Immunogenicity of CD4 <sup>+</sup> T-Cell Responses and Protective Efficacy of a DNA-Modified Vaccinia Virus Ankara Prime-Boost Vaccination Regimen for Murine Tuberculosis," <i>Infect. Imm.</i> 69(2):681-686 (2001).		
	AZ4	Moorthy, M.S., <i>et al.</i> , "Safety of DNA and Modified vaccinia virus Ankara Vaccines Against Liver-Stage <i>P. falciparum</i> Malaria in Non-Immune Volunteers," <i>Vaccine</i> , 21(17-18):1995-2002 (2003).		
	AR5	Moorthy, M.S. and Hill, A., "Malaria Vaccines," <i>Br. Med. Bull.</i> , 62:59-72 (2002).		
	AS5	Moreno, A., <i>et al.</i> , "Cytotoxic CD4 <sup>+</sup> T Cells From a Sporozoite-Immunized Volunteer Recognize the <i>Plasmodium falciparum</i> CS Protein," <i>Int-Immunol</i> , 3(10):997-1003 (1991).		
	AT5	Moss, B., <i>et al.</i> , "Host Range Restricted, Non-Replicating Vaccinia Virus Vectors as Vaccine Candidates," <i>Advances in Experimental Medicine and Biology</i> 397:7-13 (1996).		
	AU5	Müller, H.M., <i>et al.</i> , "Thrombospondin Related Anonymous Protein (TRAP) of <i>Plasmodium falciparum</i> Binds Specifically to Sulfated Glycoconjugates and to HepG2 Hepatoma Cells Suggesting a Role for this Molecule in Sporozoite Invasion of Hepatocytes," <i>Embo J.</i> :2881-2889 (July 1993).		
	AV5	Murata, K., <i>et al.</i> , "Characterization of <i>in Vivo</i> Primary and Secondary CD8 <sup>+</sup> T Cell Responses Induced by Recombinant Influenza and Vaccinia Viruses," <i>Cell. Immunol.</i> 173(1):96-107 (Oct. 10, 1996).		
	AW5	Nardin, E.H. and Nussenzweig, R.S., "T Cell Responses to Pre-Erythrocytic Stages of Malaria: Role in Protection and Vaccine Development Against Pre-Erythrocytic Stages," <i>Annu. Rev. Immunol.</i> 11:687-727 (1993).		
	AX5	Plebanski, M., <i>et al.</i> , "Protection From <i>Plasmodium berghei</i> Infection By Priming and Boosting T Cells to a Single Class I-Restricted Epitope with Recombinant Carriers Suitable for Human Use," <i>Eur. J. Immunol.</i> , 28(12):4345-4355 (1998).		
	AY5	Richmond, J.F.L., <i>et al.</i> , "Screening of HIV-1 Env Glycoproteins for the Ability to Raise Neutralizing Antibody Using DNA Immunization and Recombinant Vaccinia Virus Boosting," <i>Virology</i> 230:265-274 (1997).		
↓	AZ5	Rodrigues, E.G., <i>et al.</i> , "Single Immunizing Dose of Recombinant Adenovirus Efficiently Induces CD8 <sup>+</sup> T Cell-Mediated Protective Immunity Against Malaria," <i>J. Immunol.</i> 158(3):1268-1274 (Feb. 1997).		

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LWH	AR6	Rodrigues, M., <i>et al.</i> , "Influenza and Vaccinia Viruses Expressing Malaria CD8 <sup>+</sup> T and B Cell Epitopes," <i>J. Immunol.</i> 153(10):4636-4648 (Nov. 15, 1994).
	AS6	Schneider, J., <i>et al.</i> , "A Prime-Boost Immunisation Regimen Using DNA Followed By Recombinant Modified Vaccinia Virus Ankara Induces Strong Cellular Immune Responses Against the <i>Plasmodium falciparum</i> TRAP Antigen In Chimpanzees," <i>Vaccine</i> , 19(32):4595-4602 (2001).
	AT6	Schneider, J., <i>et al.</i> , "Induction of CD8 <sup>+</sup> T Cells Using Heterologous Prime-Boost Immunisation Strategies," <i>Immunological Reviews</i> , 170:29-38 (1999).
	AU6	Schneider, J., <i>et al.</i> , "Enhanced Immunogenicity for CD8 <sup>+</sup> T Cell Induction and Complete Protective Efficacy of Malaria DNA Vaccination by Boosting with Modified Vaccinia Virus Ankara," <i>Nature Medicine</i> 4(4): 397-402 (April 1998).
	AV6	Schödel, F., <i>et al.</i> , "Immunity to Malaria Elicited by Hybrid Hepatitis B Virus Core Particles Carrying Circumsporozoite Protein Epitopes," <i>J. Exp. Med.</i> 180(3):1037-1046 (Sept. 1994).
	AW6	Sedegah, M., <i>et al.</i> , "Protection against Malaria by Immunization with Plasmid DNA Encoding Circumsporozoite Protein," <i>Proc. Natl. Acad. Sci. USA</i> 91(21):9866-9870 (Oct. 1994).
	AX6	Seguin, M.C., <i>et al.</i> , "Induction of Nitric Oxide Synthase Protects against Malaria in Mice Exposed to Irradiated <i>Plasmodium berghei</i> Infected Mosquitoes: Involvement of Interferon $\gamma$ and CD8 <sup>+</sup> T Cells," <i>J. Exp. Med.</i> 180(1):353-358 (July 1994).
	AY6	Stoute, J.A., <i>et al.</i> , "A Preliminary Evaluation of a Recombinant Circumsporozoite Protein Vaccine Against <i>Plasmodium falciparum</i> Malaria," <i>NE J. of Medicine</i> 336:86-91 (1997).
	AZ6	Sutter, G., <i>et al.</i> , "A Recombinant Vector Derived From the Host Range-Restricted and Highly Attenuated MVA Strain of Vaccinia Virus Stimulates Protective Immunity in Mice to Influenza Virus," <i>Vaccine</i> 12(11):1032-1040 (Aug. 1994).
	AR7	Tartaglia, J., <i>et al.</i> , "NYVAC: A Highly Attenuated Strain of Vaccinia Virus," <i>Virology</i> 188(1):217-232 (May 1992).
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LWH	AT7	Tsang, K.Y., <i>et al.</i> , "Generation of Human Cytotoxic T Cells Specific for Human Carcinoembryonic Antigen Epitopes From Patients Immunized With Recombinant Vaccinia-CEA Vaccine," <i>J. Natl. Cancer Inst.</i> 87(13):982-990 (July 1995).
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	AX7	Zhu, X., <i>et al.</i> , "Functions and Specificity of T Cells Following Nucleic Acid Vaccination of Mice Against <i>Mycobacterium tuberculosis</i> Infection," <i>J. Immunol.</i> , 158:5921-5926 (1997).
	AY7	Sequence Alignment of SEQ ID NO: 2 with Geneseq database ID NO: AAR43244 from WO 93/201103-A. Entry date: May, 1994 Inventor: Elvin, <i>et al.</i>
	AZ7	Sequence Alignment of SEQ ID NO: 4 with Geneseq database ID NO: AAR43245 from WO 93/201103-A. Entry date: May, 1994 Inventor: Elvin, <i>et al.</i>
	AR8	Sequence Alignment of SEQ ID NO: 6 with Geneseq database ID NO: AAR43243 from WO 93/201103-A. Entry date: May, 1994 Inventor: Elvin, <i>et al.</i>
	AS8	Rodriguez, D., <i>et al.</i> , "Regulated Expression of Nuclear Genes by T3 RNA Polymerase and <i>lac</i> Repressor. Using Recombinant Vaccinia Virus Vectors," <i>J. Virol.</i> 64(10):4851-4857 (Oct. 1990).
	AT8	Watson, J.C., <i>et al.</i> , "General Immunization Practices," Ch. 5, in <i>Vaccines</i> , Plotkin, S.A. and Orenstein, eds., WB Saunders publ. 1999.
↓	AU8	Drexler, I., <i>et al.</i> , "Highly Attenuated Modified Vaccinia Virus Ankara Replicates in Baby Hamster Kidney Cells, a Potential Host for Virus Propagation, But Not in Various Human Transformed and Primary Cells," <i>J. Gen. Virol.</i> 79:347-352 (1998).

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LWH	AV8	Reece, WHH, <i>et al.</i> , "A DNA/MVA Prime-Boost Vaccination Regime Induces Strong Immune Responses and Partial Protection Against <i>Plasmodium falciparum</i> in Humans," <i>Poster at the British Society for Immunology</i> (December 2001).
	AW8	"Peptide Database", Cancer Immunity, March 2001, online, retrieved from the Internet on June 23, 2003. <URL: <a href="http://cancerimmunity.org/peptidedatabase/tcellepitopes.htm">http://cancerimmunity.org/peptidedatabase/tcellepitopes.htm</a> >
	AX8	Zorn, E., <i>et al.</i> , 'A Natural Cytotoxic T Cell Response in a Spontaneously Regressing Human Melanoma Targets a Neoantigen Resulting From a Somatic Point Mutation,' <i>Eur. J. Immunol.</i> , 29:592-601 (1999).
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	AZ8	Castelli, C., <i>et al.</i> 'Mass Spectrometric Identification of a Naturally Processed Melanoma Peptide Recognized by CD8 <sup>+</sup> Cytotoxic T Lymphocytes', <i>J. Exp. Med.</i> , 181:363-368 (1995).
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	AS9	'Epitope Maps', HIV Molecular Immunology Database, online, retrieved from the Internet on June 23, 2003. <URL: <a href="http://hiv-web.lanl.gov/content/immunology/maps/maps.html">http://hiv-web.lanl.gov/content/immunology/maps/maps.html</a> >
	AT9	SYFPEITHI Database, 'Find Your Motif, Ligand or Epitope,' <URL: <a href="http://syfpeithi.bmiheidelberg.com/Scripts/MHCServer.dll/findyourmotif.htm">http://syfpeithi.bmiheidelberg.com/Scripts/MHCServer.dll/findyourmotif.htm</a> >
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	AV9	Wang, M., <i>et al.</i> , "Active Immunotherapy of Cancer..., " <i>The American Association of Immunologists</i> , p. 4685-4692, 1995
	AW9	Tartaglia, J., <i>et al.</i> , "Protection of Cats against Feline..., " <i>Journal of Virology</i> , p. 2370-2375, 1993
↓	AX9	Brossart, P., <i>et al.</i> , "Virus-Mediated Delivery of Antigenic..., " <i>The American Association of Immunologists</i> , p. 3270-3276, 1997

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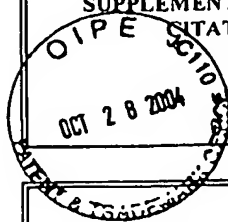


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PTO-1449-REPRODUCED		ATTORNEY DOCKET NO. 2907.1000-003		APPLICATION NO. 10/686,943	
<b>SUPPLEMENTAL INFORMATION DISCLOSURE</b> <b>CITATION IN AN APPLICATION</b>  October 26, 2004 (Use several sheets if necessary)		FIRST NAMED INVENTOR Andrew McMichael		FILING DATE October 16, 2003	
		EXAMINER Not Yet Assigned		CONFIRMATION NO. 4585	
				GROUP 1648	



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LWH	AH	US-2004-0131594-A1	July 8, 2004	McMichael, <i>et al.</i>
	AI	US-2004-0179349-A1	October 7, 2004	McMichael, <i>et al.</i>
	AJ	US-2004-0175365-A1	September 9, 2004	McMichael, <i>et al.</i>
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	AP				
	AQ				

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LWH	AS10	The Schlom Declaration cited in the opposition proceedings of European Patent Application No. EP0979284, to which the subject application claims priority.
	AT10	The Gritz Declaration cited in the opposition proceedings of European Patent Application No. EP0979284, to which the subject application claims priority.
V	AU10	The Chamberlain Declaration cited in the opposition proceedings of European Patent Application No. EP0979284, to which the subject application claims priority.
	AV10	
	AW10	
	AX10	
	AY10	
	AZ10	

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**Andrew McMichael**

October 16, 2003

Louise W. Z. Humphrey

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**FILED** May 16, 2006

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	FIRST NAMED INVENTOR Andrew McMichael		FILING DATE October 16, 2003	
	EXAMINER Louise W. Z. Humphrey	CONFIRMATION NO. 4585	GROUP 1648	

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	EXAMINER Louise W. Z. Humphrey		CONFIRMATION NO. 4585	GROUP 1648

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